acid sequence of a protein which produces raffinose by combining a D-galactosyl group through an $\alpha(1\rightarrow6)$ bond with a hydroxyl group attached to the carbon atom at position 6 of a D-glucose residue in a sucrose molecule, wherein said nucleotide sequence comprises a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence of SEQ ID NO:1,

(b) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:2,

(c) a nucleotide sequence of SEQ ID NO:3,

(d) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:4,

(e) a nucleotide sequence of SEQ ID NO:5,

(f) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:6,

(g) a nucleotide sequence of SEQ ID NO:7,

(h) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:8, and

(i) a nucleotide sequence isolated from a plant selected from the group consisting of leguminous plants, lamiaceous plants, and monocotyledon, said nucleotide sequence is hybridizable with a nucleotide sequence complementary to the nucleotide sequence of any one of (a) to (h), in 0.9 M NaCl, 0.09 M citric acid at 65°C.

H2 SUB I2

Claim 4. (Twice Amended) The isolated nucleic acid according to claim 1, wherein the leguminous plant is broad bean.

H3 SUB I3

Claim 7. (Twice Amended) The isolated nucleic acid according to claim 1, wherein the leguminous plant is soybean.

H4 SUB I4

Claim 11. (Twice Amended) The isolated nucleic acid according to claim 1, wherein the lamiaceous plant is Japanese artichoke.

H5 SUB I5

Claim 15. (Twice Amended) The isolated nucleic acid according to claim 1, wherein the monocotyledon is a gramineous plant.

H6 SUB I6

Claim 30. (Four Times Amended) A chimera gene comprising:

a nucleic acid isolated from a plant comprising a nucleotide sequence coding for an amino acid sequence of a protein which produces raffinose by combining a D-galactosyl group through an $\alpha(1\rightarrow6)$ bond with a hydroxyl group attached to the carbon atom at position 6 of a D-glucose residue in a sucrose molecule, wherein said nucleotide sequence comprises a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence of SEQ ID NO:1,

(b) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:2,

(c) a nucleotide sequence of SEQ ID NO:3,

(d) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:4,

(e) a nucleotide sequence of SEQ ID NO:5,

(f) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:6,

(g) a nucleotide sequence of SEQ ID NO:7,

(h) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:8, and

(i) a nucleotide sequence isolated from a plant selected from the group consisting of leguminous plants, lamiaceous plants, and monocotyledon, said nucleotide sequence is hybridizable with a nucleotide sequence complementary to the nucleotide sequence of any one of (a) to (h), in 0.9 M NaCl, 0.09 M citric acid at 65°C, and a promoter linked thereto.

Claim 32. (Four Times Amended) A plasmid comprising a nucleic acid isolated from a plant comprising a nucleotide sequence coding for an amino acid sequence of a protein which produces raffinose by combining a D-galactosyl group through an $\alpha(1\rightarrow6)$ bond with a hydroxyl group attached to the carbon atom at position 6 of a D-glucose residue in a sucrose molecule, wherein

said nucleotide sequence comprises a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence of SEQ ID NO:1,

(b) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:2,

H7

(c) a nucleotide sequence of SEQ ID NO:3,

(d) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:4,

SUB I7

(e) a nucleotide sequence of SEQ ID NO:5,

(f) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:6,

(g) a nucleotide sequence of SEQ ID NO:7,

(h) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:8, and

(i) a nucleotide sequence isolated from a plant selected from the group consisting of leguminous plants, lamiaceous plants, and monocotyledon, said nucleotide sequence is hybridizable with a nucleotide sequence complementary to the nucleotide sequence of any one of (a) to (h), in 0.9 M NaCl, 0.09 M citric acid at 65°C.

Claim 36. (Four Times Amended) A method for metabolic modification, which comprises introducing a nucleic acid isolated from a plant comprising a nucleotide sequence coding for an amino acid sequence of a protein which produces raffinose by combining a

H8

SUB I8

D-galactosyl group through an $\alpha(1\rightarrow6)$ bond with a hydroxyl group attached to the carbon atom at position 6 of a D-glucose residue in a sucrose molecule, wherein said nucleotide sequence comprises a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence of SEQ ID NO:1,

(b) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:2,

(c) a nucleotide sequence of SEQ ID NO:3,

(d) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:4,

(e) a nucleotide sequence of SEQ ID NO:5,

(f) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:6,

(g) a nucleotide sequence of SEQ ID NO:7,

(h) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:8, and

(i) a nucleotide sequence isolated from a plant selected from the group consisting of leguminous plants, lamiaceous plants, and monocotyledon, said nucleotide sequence is hybridizable with a nucleotide sequence complementary to the nucleotide sequence of any one of (a) to (h), in 0.9 M NaCl, 0.09 M citric acid at 65°C, into a host organism or a cell thereof, so that the content of raffinose family oligosaccharides in the host organism or the cell thereof is changed.

Claim 40. (Twice Amended) An isolated nucleic acid comprising (i) a polynucleotide having a sequence that encodes a protein having an amino acid sequence selected from the group consisting of SEQ ID NOs:2, 4, 6, or 8 or (ii) a polynucleotide having a sequence complementary to said sequence, or (iii) a polynucleotide isolated from a plant selected from the group consisting of leguminous plants, lamiaceous plants, and monocotyledon, said polynucleotide hybridizes to the polynucleotide (i) or (ii) in 0.9 M NaCl, 0.09 M citric acid at 65°C.

H9

SUB I9

Claim 41. (Twice Amended) An isolated nucleic acid comprising (i) a polynucleotide having a nucleotide sequence selected from the group consisting of SEQ ID NOs:1, 3, 5, or 7 or (ii) a polynucleotide having a sequence complementary to said sequence, or (iii) a polynucleotide isolated from a plant selected from the group consisting of leguminous plants, lamiaceous plants, and monocotyledon, said polynucleotide hybridizes to the polynucleotide (i) or (ii) in 0.9 M NaCl, 0.09 M citric acid at 65°C.

Claim 43. (Amended) An isolated nucleic acid comprising a nucleotide sequence coding for the amino acid sequence of SEQ ID NO:2.

H9 cont.

Claim 44. (Amended) An isolated nucleic acid comprising a nucleotide sequence coding for the amino acid sequence of SEQ ID NO:4.

A marked-up copy of the claims is attached hereto to show the changes made by this Reply.